

WHAT IS CLAIMED IS:

1. A method for the treatment of systemic lupus erythematosus (SLE) comprising administering to a SLE patient an effective amount to treat SLE of a synthetic peptide selected from the group consisting of:

(i) a peptide of at least 12 and at most 30 amino acid residues consisting of a sequence including a complementarity-determining region found in the heavy or light chain of a pathogenic anti-DNA monoclonal antibody that induces a systemic lupus erythematosus (SLE)-like disease in mice, or a salt thereof or the reaction product thereof with an organic derivatizing agent capable of reacting with selected side chains or terminal residues, which reaction product retains at least a portion of the function of the peptide to inhibit specifically the proliferative response and cytokine secretion of T lymphocytes of mice that are high responders to SLE-inducing autoantibodies;

(ii) a dual synthetic peptide comprising two different ones of said peptides of (i) covalently linked to one another either directly or through a short linking chain;

(iii) a peptide polymer comprising a plurality of sequences of said peptide (i); and

(iv) a peptide polymer of (iii) attached to a macromolecular carrier.

2. A method in accordance with claim 1, wherein said synthetic peptide comprises a dual synthetic peptide of (ii).

3. A method in accordance with claim 2, wherein said two peptides of said dual synthetic peptide are linked covalently.

4. A method in accordance with claim 1, wherein said synthetic peptide comprises a peptide polymer of (iii).

5. A method in accordance with claim 1, wherein said peptide of (i) is one bearing the 16/6 idiootype.

6. A method for the treatment of systemic lupus erythematosus (SLE) comprising administering to a SLE patient an effective amount to treat SLE of a synthetic peptide selected from the group consisting of:

(i) a peptide consisting of the sequence of SEQ ID NO:1, 2, 3, 4, or 5;

(ii) a dual synthetic peptide comprising two different ones of said peptides of (i) covalently linked to one another either directly or through a short linking chain;

(iii) a peptide polymer comprising a plurality of sequences of said peptide (i); and

(iv) a peptide polymer of (iii) attached to a macromolecular carrier.

7. A method in accordance with claim 6, wherein said synthetic peptide consists of the sequence of SEQ ID NO:6.

8. A method in accordance with claim 6, wherein said synthetic peptide consists of the sequence of SEQ ID NO:7

9. A method in accordance with claim 6, wherein said synthetic peptide consists of the sequence of SEQ ID NO:8

10. A method in accordance with claim 6, wherein said synthetic peptide consists of the sequence of SEQ ID NO:9

11. A method in accordance with claim 6, wherein said synthetic peptide consists of the sequence of SEQ ID NO:10

12. A method in accordance with claim 6, wherein said synthetic peptide comprises a dual synthetic peptide of (i)

13. A method in accordance with claim 12, wherein said two peptides of said dual synthetic peptide are linked covalently.

14. A method in accordance with claim 6, wherein said synthetic peptide comprises a peptide polymer of (iii).

15. A method in accordance with claim 6, wherein said peptide of (i) consists of the sequence of SEQ ID NO:1.